

SPECTRA FINAL PREPARATORY TEST

SPECTRA CLASSES

CLASS – 8TH

SUBJECT – SCIENCE

TIME – 3 HR.

MM: 80

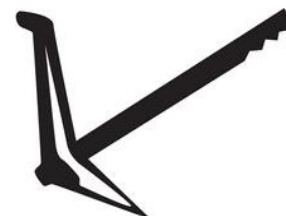
General Instruction:

1. This question paper consists of 38 questions. All questions are compulsory.
2. This question paper is divided into five Sections - A, B, C, D and E.
3. Section A Question numbers 1 to 18 are multiple choice questions (MCQs) and questions numbers 19 and 20 are Assertion - Reason based questions of 1 mark each.
4. Section B, Question numbers 21 and 25 are very short answer (VSA) type questions. Carrying 2 marks each.
5. Section C, Question numbers 26 and 31 are short answer (SA) type questions. Carrying 3 marks each.
6. Section D, Question numbers 32 and 35 are long answer (LA) type questions. Carrying 5 marks each.
7. Section E, Question numbers 36 and 38 are case-study based integrated question carrying 4 marks each.
9. Draw neat diagrams wherever required. .
10. Use of calculators is NOT allowed.

SECTION - A

1. Which of the following is true regarding the given figure?

- (a) It is cultivator which is driven by a tractor.
- (b) It has a long shaft of wood called plough share.
- (c) It consists of a triangular iron strip called plough shaft.
- (d) It is used for tilling, removing weeds and scraping the soil.



2. Which state was hit by a powerful earthquake on 26th January 2001?

- (a) Jammu and Kashmir (b) Gujarat (c) Maharashtra (d) Assam

3. Distilled water bad conductor of electricity but vinegar is good conductor as it contain

- (a) Tartaric acid (b) Oxalic acid (c) Acetic acid (d) Sulphuric acid

4. An object attached to one end of a spring makes 20 vibrations in 10s. Its frequency is

- (a) 0.05 Hz (b) 2 Hz (c) 0.2 Hz (d) 10 Hz

5. Penicillium is a

- (a) Yeast (b) Bacteria (c) Algae (d) Fungus

6. It is difficult to walk on the ice because

- (a) Pressure is low (b) friction is high (c) pressure is high (d) friction is low

7. A soda acid fire extinguisher contains (I).....and (ii)..... is two separate compartments, (I) and (ii) are respectively

- (a) Baking soda and sulphuric acid (b) Sulphuric acid and soda lime (c) Washing soda and vinegar (d) Soda lime and washing soda

8. Which of the following is a bird sanctuary?

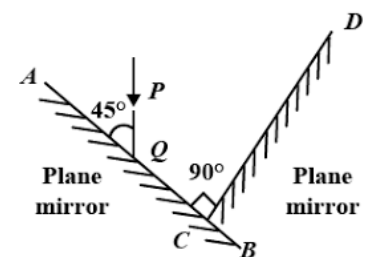
- (a) Keoladeo (b) Periyar (c) Ranthambore (d) All of these

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9. The male hormone is
 (a) Testosterone (b) Progesterone (c) Oestrogen (d) Both oestrogen and Progesterone
10. When the applied force is doubled on an object and the object is still at rest, what will the friction?
 (a) Friction becomes halved (b) Friction becomes quadrupled
 (c) Friction becomes zero (d) Friction becomes doubled
11. Animals exhibiting external fertilization produce a large number of gametes. Pick the appropriate reason from the following :
 (a) Water promotes production of large number of gametes.
 (b) To ensure better chance of fertilization.
 (c) Food is available in plenty in water.
 (d) The animals are small in size and want to produce more offsprings.
12. Coal is processed in industries to get some useful products. Which of the following is not obtained from coal?
 (a) Coal tar (b) CNG (c) Coke (d) Coal gas
13. Choose the correct option.
 I. A blunt knife cuts with difficulty because of increased pressure it creates.
 II. On increasing the level of height, atmospheric pressure decrease.
 (a) I only (b) II only (c) Both I and II (d) Both are incorrect
14. A metal is released in the electrolysis of a salt. It gets deposited on the
 (a) Cathode (b) Sides of the container (c) half on the anode and half on the cathode (d) Anode
15. Which of the following instruments is based on the theory of multiple reflections?
 (a) Periscope (b) Kaleidoscope and Periscope (c) Kaleidoscope (d) Microscope
16. Under which condition does metamorphosis takes place?
 (a) Females are twice the size of males.
 (b) Young ones eat the same food as adults.
 (c) Females are bright-coloured while males are dull.
 (d) Young ones look different from adults.
17. Two plane mirrors I and II are placed at right angle to one another. A ray of light PQ hits I at Q making an angle of 45° as shown in the diagram. This ray will be reflected from mirror II at an angle of
 (a) 60° (b) 20° (c) 45° (d) 35°



18. Fish liver oil is rich in :
 A. Vitamin A B. Vitamin B C. Vitamin C (d) Vitamin D
 (a) A and B (b) B and C (c) A and D (d) only D
19. Assertion (A): It is safer under a tall tree during lightning.
 Reason (R) : It will make you the target for lightning.
 (a) Both A and R are true and R is the correct explanation of A.
 (b) Both A and R are true but R is not the correct explanation of A.
 (c) A is true but R is false.
 (d) A is false but R is true.

20. Assertion (A) : The endocrine glands are called ductless glands.
Reason (R) : They don't release hormones directly into the blood streams.
(a) Both A and R are true and R is the correct explanation of A.
(b) Both A and R are true but R is not the correct explanation of A.
(c) A is true but R is false.
(d) A is false but R is true.

Section -B

This section consists of 5 questions of 2 marks each.

21. Paheli watched her grandmother making mango pickle . After she bottled the pickle, her grandmother poured oil on top of the pickle before closing the lid. Paheli wanted to know why oil was poured? Can you help her understand why?
22. What is the unique feature of the biodiversity found in Panchmarhi Biosphere Reserve?
23. Salma had very soft and smooth skin during her childhood. As she entered adolescence, she developed pimples on her face. The skin specialist advised her to wash her face at regular intervals. Can you explain the reasons for the appearance of pimples on her face and suggest ways to prevent them?
24. Amit is pushing a heavy trunk on the floor . Finding it a little difficult, he turns the trunk to place it vertically . Will he need to do less effort now? Explain.
25. In purification of copper , A thin plate of pure copper and a thick rod of impure copper are used as electrodes. Copper from impure rod is sought to be transferred to the thin copper plate. Which electrode should be attached to the positive terminal of the battery and why?

Section - C

This section consists of 6 questions of 3 marks each.

26. What is black gold ? Why it is called so?
27. Compare the different method of irrigation.
28. Who developed in-vitro fertilization ? Write a note on it.
29. Anu wants to boil water quickly in a test tube. On observing the different zones of the flame, she is not able to decide which zone of the flame will be best for boiling water quickly . Help her in this activity.
30. It is much easier to burst an inflated balloon with a needle than by a finger. Explain.
31. Define frequency, amplitude and time period of a vibration.

Section - D

This section consists of 4 questions of 5 marks each.

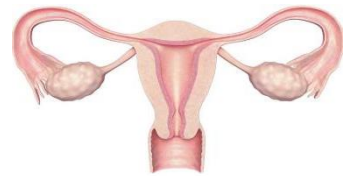
32. Draw the structure of human ear and explain its working.
33. (a) What is meant by atmospheric pressure ? What is the cause of atmospheric pressure?
(b) Why are our bodies not crushed by the large pressure exerted by the atmosphere?
(c) Explain why, atmospheric pressure decreases as we go higher up above the earth's surface.

34. After observing figure answer the following:

(a) Read the following statements and label them in the figure:

- (i) The part which produces female gametes.
- (ii) The part which the development of the baby takes place.
- (iii) The part through which the developing embryo passes to reach the uterus.

(b) Explain the future development of the embryo that would take place after it gets embedded in the uterus.



35. Explain the internal structure of human eye. Also discuss the functions of various parts of the eye.

Section - E

This section consists of 3 Case - Study Based Questions of 4 marks each.

36. Read the text carefully and answer the questions :

Roma study about the sex hormones. Now she want to know that there are other hormones too. So she ask her teacher about this. Her teacher told her that apart from the pituitary, the testes and the ovaries, there are other endocrine glands in the body such as thyroid, pancreas and adrenals gland and she also told her that these hormones deficiency caused various diseases.

(a) Which of the following diseases caused if thyroid gland not produce the hormone thyroxine.

- (i) Hyperthyroidism (ii) Survey (iii) Night blindness (iv) Goiter

(b) Pituitary also secretes

- (i) Growth hormone (ii) Oestrogen (iii) Insulin (iv) Adrenaline

(c) Thyroid and adrenals secrete their hormones when they receive orders from the

- (i) Pituitary (ii) Ovary (iii) Adrenal (iv) Pancreas

(d) In pancreas not producing the hormone insulin it will caused

37. Read the text carefully and answer the questions:

Step 1 - Take a few pencils which are cylindrical in shape.

Step 2- Place them parallel to each other on a table.

Step 3 - Place a thick book over it. Now push the book. You observe the pencils rolling as the book moves.

Step 4 - If we use eraser to move the book in this way than to slide it.



(a) Sliding friction is than /to rolling friction.

- (i) Not equal (ii) Smaller (iii) Sliding friction (iv) Composite friction

(b) Which of the following produces least friction :

- (i) Rolling friction (ii) Static friction (iii) Sliding friction (iv) Composite friction

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(c) When ever the surfaces in contact tend to move or move with respect to each other, the force of friction comes into play

(i) Only if the objects are solid . (ii) only if one of the two objects is liquid.

(iii) irrespective of whether the objects are solid, liquid or gaseous .

(iv) Only if one of the two objects is gaseous.

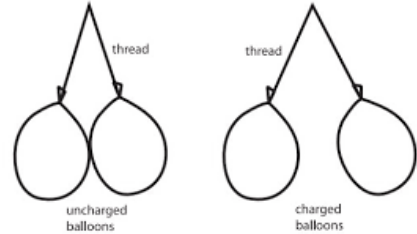
(d) Sliding friction is than static friction.

38. Read the test carefully and answer the questions:

Two group of students carrying the following activity

Step 1 - Inflate two balloons. Hang them is such a way that they do not touch each other.

Step 2 - Rub both the balloons with a woollen cloth and release them.



(a) The two balloon in the above activity will

(i) Some interaction takes place (ii) Repel each other

(iii) No interaction takes place (iv) Attract each other

(b) Types of charges gained by rubbing objects are

(i) 0 (ii) 3 (iii) 4 (iv) 2

(c) If same activity is performed by charge refill and charged balloon then what will happen

(i) Attract each other (ii) No interaction take place

(iii) Some interaction take place (iv) Repel each other

(d) The current in a circuit which makes a bulb glow, or the current that makes a wire hot, is nothing but a of charge.

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